

ABSTRACT

An apparatus for and method of converting soft symbol decision information into soft bit decision information that overcomes the disadvantages of the prior art. The invention is adapted to receive M soft symbol values where each symbol represents m bits ($M = 2^m$). The output for each symbol comprises m soft values of bits representing the symbol. The invention is operative to convert the soft symbol values to soft bit values using the log likelihood ratios (LLRs) of a bit and a symbol expressed as conditional probabilities. The method of the invention is presented which can be performed in either hardware or software. A computer comprising a processor, memory, etc. is operative to execute software adapted to perform the soft symbol to bit conversion method of the present invention.